

## Analyserapport

Certicon Kwaliteitsk. BV  
Keplerlaan 14  
6716 BS EDE

Blad 1 van 7

Uw projectnaam : Onderzoek TGG Eemshaven - deelpartij 5  
Uw projectnummer : P2019-0405  
SYNLAB rapportnummer : 12995336, versienummer: 1  
Rapport-verificatienummer : A4PCLUNT

Rotterdam, 02-04-2019

Geachte heer/mevrouw,

Hierbij ontvangt u de analyse resultaten van het laboratoriumonderzoek ten behoeve van uw project P2019-0405. Het onderzoek werd uitgevoerd conform uw opdracht. De gerapporteerde resultaten hebben uitsluitend betrekking op de geteste monsters. De door u aangegeven omschrijvingen voor de monsters en het project zijn overgenomen in dit analyserapport.

Het onderzoek is uitgevoerd door SYNLAB Analytics & Services B.V., gevestigd aan de Steenhouwerstraat 15 in Rotterdam (NL). Indien het onderzoek is uitgevoerd door derden of het SYNLAB laboratorium in Frankrijk (99-101 Avenue Louis Roche, Gennevilliers) is dit in het rapport aangegeven.

Dit analyserapport bestaat inclusief bijlagen uit 7 pagina's. In geval van een versienummer van '2' of hoger vervallen de voorgaande versies. Alle bijlagen maken onlosmakelijk onderdeel uit van het rapport. Alleen vermenigvuldiging van het hele rapport is toegestaan.

Mocht u vragen en/of opmerkingen hebben naar aanleiding van dit rapport, bijvoorbeeld als u nadere informatie nodig heeft over de meetonzekerheid van de analyseresultaten in dit rapport, dan verzoeken wij u vriendelijk contact op te nemen met de afdeling Customer Support.

Wij vertrouwen er op u met deze informatie van dienst te zijn.



## Analyserapport

Projectnaam           Onderzoek TGG Eemshaven - deelpartij 5  
 Projectnummer       P2019-0405  
 Rapportnummer       12995336 - 1

Orderdatum           15-03-2019  
 Startdatum           15-03-2019  
 Rapportagedatum   02-04-2019

Nummer	Monstersoort	Monsterspecificatie
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001	Grond	M1-5
002	Grond	M1-6

Analyse	Eenheid	Q	001	002
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*ANALYSES UITGEVOERD DOOR DERDEN*

Dioxines (PCDD/PCDF)			zie bijlage	zie bijlage
I-PCDD/F-TEQ Lower Bound	ng/kgds		6.7	5.3
I-PCDD/F-TEQ Upper Bound	ng/kgds		9.8	8.4
WHO-PCDD/F-TEQ Lower Bound	ng/kgds		6.4	5.1
WHO-PCDD/F-TEQ Upper Bound	ng/kgds		10	8.9
PBDE			zie bijlage	zie bijlage

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Orderdatum           15-03-2019  
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 Rapportagedatum     02-04-2019

Analyse	Monstersoort	Relatie tot norm
Dioxines (PCDD/PCDF)	Grond	Analyse uitbesteed
I-PCDD/F-TEQ Lower Bound	Grond	Idem
I-PCDD/F-TEQ Upper Bound	Grond	Idem
WHO-PCDD/F-TEQ Lower Bound	Grond	Idem
WHO-PCDD/F-TEQ Upper Bound	Grond	Idem
PBDE	Grond	Idem

Monster	Barcode	Aanlevering	Monstername	Verpakking
001	Y7651518	15-03-2019	14-03-2019	ALC201
002	Y7651505	15-03-2019	14-03-2019	ALC201


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 Akred. nr 1006  
 Provning  
 ISO/IEC 17025

**REPORT**

Page 1 (2)

issued by an Accredited Laboratory

**Report No. 19105342**

Assigner

 SYNLAB Analytics & Services BV  
 Rotterdam

 Steenhouwerstraat 15  
 3194 AG ROTTERDAM


Applies to

**Information about the project**
**Soil**

Project number : 12995336

**Information about sample and sampling**

Invoice reference	: P77383	Date of Arrival	: 2019-03-19
Sampling date	: 2019-03-14	Time of Arrival	: 1130
Sample name	: 12995336-001 M1-5		
Depth of sampling	: -		
Sampler	: -		

**Results of the analyses**

Test method	Analysis / Investigation of	Result	Uncertainty	Unit
SS-EN 11465	Dry substance	85.3	± 8.53	%
SIS-CEN/TS 16190:2013mod	2378 TCDD	3.7	± 1.1	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDD	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDD	< 2	± 0.70	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDD	6.7	± 2.3	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDD	5.6	± 2.0	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDD	99	± 30	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDD	320	± 96	ng/kg DS
SIS-CEN/TS 16190:2013mod	2378 TCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	23478 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDF	3.3	± 0.99	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	234678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDF	11	± 3.3	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234789 HpCDF	< 5	± 1.5	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDF	37	± 11	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Lower Bound	6.7	± 2.3	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Upper Bound	9.8	± 3.4	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ LB	6.4	± 2.2	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ UB	10	± 3.5	ng/kg DS
	Dry substance (1)	85.0		%
GC/MS (*)	2,4,4'-TrBDE #28 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4'-TeBDE # 47 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5-PnBDE #99 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',6-PnBDE #100 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,5'-HxBDE #153 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,6'-HxBDE #154 (1)	< 0.2		mg/kg TS

(\*) :Method not accredited by Swedac

(1) Result supplied by RPS Mountainheath, UK

 The stated uncertainty of measurement is calculated using a coverage  $k = 2$ . Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

(continued)



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**REPORT** Page 2 (2)  
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**Report No. 19105342**

Assigner  
 SYNLAB Analytics & Services BV  
 Rotterdam

Steenhouwerstraat 15  
 3194 AG ROTTERDAM

*Applies to*

<b>Information about the project</b>	<b>Soil</b>
Project number	: 12995336

<b>Information about sample and sampling</b>			
Invoice reference	: P77383	Date of Arrival	: 2019-03-19
Sampling date	: 2019-03-14	Time of Arrival	: 1130
Sample name	: 12995336-001 M1-5		
Depth of sampling	: -		
Sampler	: -		

<b>Results of the analyses</b>				
<i>Test method</i>	<i>Analysis / Investigation of</i>	<i>Result</i>	<i>Uncertainty</i>	<i>Unit</i>
GC/MS (*)	2,2',3,4,4',5',6-HpBDE #183 (1)	< 0.2		mg/kg TS
GC/MS (*)	DekaBDE #209 (1)	-		mg/kg TS
(*) :Method not accredited by Swedac				
(1) Result supplied by RPS Mountainheath, UK				

The stated uncertainty of measurement is calculated using a coverage  $k = 2$ . Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

**Comment**

*The analysis is performed according to standard, ie on the fraction of the submitted sample that is < 2 mm.*

*No spike recovery for BDE209, no result can be reported.*

Linköping 2019-04-02

The report has been reviewed and approved by

Responsible reviewer

Control numbers 5780 0416 8699 4366


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**REPORT**

Page 1 (2)

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**Report No. 19105345**

Assigner

 SYNLAB Analytics & Services BV  
 Rotterdam

 Steenhouwerstraat 15  
 3194 AG ROTTERDAM


Applies to

**Information about the project**
**Soil**

Project number : 12995336

**Information about sample and sampling**

Invoice reference	: P77383	Date of Arrival	: 2019-03-19
Sampling date	: 2019-03-14	Time of Arrival	: 1130
Sample name	: 12995336-002 M1-6		
Depth of sampling	: -		
Sampler	: -		

**Results of the analyses**

Test method	Analysis / Investigation of	Result	Uncertainty	Unit
SS-EN 11465	Dry substance	85.9	± 8.59	%
SIS-CEN/TS 16190:2013mod	2378 TCDD	3.8	± 1.1	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDD	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDD	< 2	± 0.70	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDD	2.6	± 0.91	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDD	3.4	± 1.2	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDD	33	± 9.9	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDD	170	± 51	ng/kg DS
SIS-CEN/TS 16190:2013mod	2378 TCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	12378 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	23478 PeCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123478 HxCDF	2.4	± 0.72	ng/kg DS
SIS-CEN/TS 16190:2013mod	123678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	123789 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	234678 HxCDF	< 2	± 0.60	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234678 HpCDF	11	± 3.3	ng/kg DS
SIS-CEN/TS 16190:2013mod	1234789 HpCDF	< 5	± 1.5	ng/kg DS
SIS-CEN/TS 16190:2013mod	OCDF	34	± 10	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Lower Bound	5.3	± 1.9	ng/kg DS
Calculated acc. NATO	I-PCDD/F-TEQ Upper Bound	8.4	± 2.9	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ LB	5.1	± 1.8	ng/kg DS
Calculated acc. WHO2005	WHO-PCDD/F-TEQ UB	8.9	± 3.1	ng/kg DS
	Dry substance (1)	85.5		%
GC/MS (*)	2,4,4'-TrBDE #28 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4'-TeBDE # 47 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5-PnBDE #99 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',6-PnBDE #100 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,5'-HxBDE #153 (1)	< 0.2		mg/kg TS
GC/MS (*)	2,2',4,4',5,6'-HxBDE #154 (1)	< 0.2		mg/kg TS

(\*) :Method not accredited by Swedac

(1) Result supplied by RPS Mountainheath, UK

 The stated uncertainty of measurement is calculated using a coverage  $k = 2$ . Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

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<b>Information about the project</b>	<b>Soil</b>
Project number	: 12995336

<b>Information about sample and sampling</b>			
Invoice reference	: P77383	Date of Arrival	: 2019-03-19
Sampling date	: 2019-03-14	Time of Arrival	: 1130
Sample name	: 12995336-002 M1-6		
Depth of sampling	: -		
Sampler	: -		

<b>Results of the analyses</b>				
<i>Test method</i>	<i>Analysis / Investigation of</i>	<i>Result</i>	<i>Uncertainty</i>	<i>Unit</i>
GC/MS (*)	2,2',3,4,4',5',6-HpBDE #183 (1)	< 0.2		mg/kg TS
GC/MS (*)	DekaBDE #209 (1)	-		mg/kg TS
(*) :Method not accredited by Swedac				
(1) Result supplied by RPS Mountainheath, UK				

The stated uncertainty of measurement is calculated using a coverage  $k = 2$ . Measurement uncertainty for accredited microbiological analyses are available from the laboratory upon request.

**Comment**

*The analysis is performed according to standard, ie on the fraction of the submitted sample that is < 2 mm.*

*No spike recovery for BDE209, no result can be reported.*

Linköping 2019-04-02

The report has been reviewed and approved by

Responsible reviewer

Control numbers 5487 0616 8098 4965